



Air Emission Event Report Database Incident 317789

Incident Tracking Number:	317789	Incident Status:	OPEN		
Report Type:	INITIAL	Report Date:	08/01/2019		
Name of Owner or Operator:	EXXON MOBIL CORPORATION	CN:	CN600123939		
Regulated Entity Name:	EXXON MOBIL CHEMICAL BAYTOWN OLEFINS PLANT	RN:	RN102212925		
Physical Location:	3525 DECKER DR; BAYTOWN, TX 77520				
County:	HARRIS				
Event/Activity Type:	EMISSIONS EVENT				
Date and Time Event Discovered or Scheduled Activity Start:	07/31/2019 10:45 AM				
Date and Time Event or Scheduled Activity Ended:	08/02/2019 10:45 AM				
Event Duration:	48 hours, 0 minutes				
Process Unit or Area Common Names					
Propylene Recovery Unit (PRU)					
Facility Common Name		Facility Identification Number (FIN)			
Propylene Recovery Unit		PRU			
1 - Emission Point Common Name:		Emission Point Number:			
Elevated Flare		FLAREXX1			
List of Air Contaminant Compounds - 16 total					
Description	Est. Quantity/ Opacity	Units	Emission Limit	Units	Authorization
1-Butene	3179.76	POUNDS	371.9	LBS/HR	3179.76 lbs of the total 3179.76 are authorized under Permit #102982/PAL6.

Acetylene	8.89	POUNDS	371.9	LBS/HR	8.89 lbs of the total 8.89 are authorized under Permit #102982/PAL6.
Benzene	459.73	POUNDS	371.9	LBS/HR	459.73 lbs of the total 459.73 are authorized under Permit #102982/PAL6.
Butadiene, 1-3	3179.76	POUNDS	371.9	LBS/HR	3179.76 lbs of the total 3179.76 are authorized under Permit #102982/PAL6.
Butane, N-	467.26	POUNDS	371.9	LBS/HR	467.26 lbs of the total 467.26 are authorized under Permit #102982/PAL6.
C5+ (not including benzene)	1072.71	POUNDS	371.9	LBS/HR	1072.71 lbs of the total 1072.71 are authorized under Permit #102982/PAL6.
Carbon Monoxide	2958.66	POUNDS	160.64	LBS/HR	2958.66 lbs of the total 2958.66 are authorized under Permit #102982/PAL6.
Cis-2-butene	200.73	POUNDS	371.9	LBS/HR	200.73 lbs of the total 200.73 are authorized under Permit #102982/PAL6.
Ethylene	42.97	POUNDS	371.9	LBS/HR	42.97 lbs of the total 42.97 are authorized under Permit #102982/PAL6.
Isobutane	0.03	POUNDS	371.9	LBS/HR	0.03 lbs of the total 0.03 are authorized under Permit #102982/PAL6.
Isobutene	10.26	POUNDS	371.9	LBS/HR	10.26 lbs of the total 10.26 are authorized under Permit #102982/PAL6.
Nitrogen Oxides (NOx)	414.47	POUNDS	22.24	LBS/HR	414.47 lbs of the total 414.47 are authorized under Permit #102982/PAL6.
Propane	161.41	POUNDS	371.9	LBS/HR	161.41 lbs of the total 161.41 are authorized under Permit #102982/PAL6.
Propylene (Propene)	1071.16	POUNDS	371.9	LBS/HR	1071.16 lbs of the total 1071.16 are authorized under Permit #102982/PAL6.
Sulfur dioxide	354.8	POUNDS	7.97	LBS/HR	183.56 lbs of the total 354.8 are authorized under Permit #102982/PAL6.
Trans-2-butene	109.32	POUNDS	371.9	LBS/HR	109.32 lbs of the total 109.32 are authorized under Permit #102982/PAL6.

2 - Emission Point Common Name:			Emission Point Number:		
Expansion Flare			FLAREX		
List of Air Contaminant Compounds - 14 total					
Description	Est. Quantity/ Opacity	Units	Emission Limit	Units	Authorization

Acetylene	1.53	POUNDS	709.48	LBS/HR	0.82 lbs of the total 1.53 lbs are authorized under Permit #3452/PSD-TX-302M2.
Benzene	1020.88	POUNDS	709.48	LBS/HR	523.48 lbs of the total 1020.88 lbs are authorized under Permit #3452/PSD-TX-302M2.
Butadiene, 1-3	2271.53	POUNDS	709.48	LBS/HR	1174.86 lbs of the total 2271.53 lbs are authorized under Permit #3452/PSD-TX-302M2.
Butane, N-	340.19	POUNDS	709.48	LBS/HR	176.73 lbs of the total 340.19 lbs are authorized under Permit #3452/PSD-TX-302M2.
C5+ (not including benzene)	835.27	POUNDS	709.48	LBS/HR	428.31 lbs of the total 835.27 lbs are authorized under Permit #3452/PSD-TX-302M2.
Carbon Monoxide	4334.86	POUNDS	6627.58	LBS/HR	2329.60 lbs of the total 4334.86 lbs are authorized under Permit #3452/PSD-TX-302M2.
Cis-2-butene	68.31	POUNDS	709.48	LBS/HR	35.36 lbs of the total 68.31 lbs are authorized under Permit #3452/PSD-TX-302M2.
Ethylene	115.75	POUNDS	709.48	LBS/HR	62.95 lbs of the total 115.75 lbs are authorized under Permit #3452/PSD-TX-302M2.
Isobutane	4.34	POUNDS	709.48	LBS/HR	2.35 lbs of the total 4.34 lbs are authorized under Permit #3452/PSD-TX-302M2.
Isobutene	206.31	POUNDS	709.48	LBS/HR	106.80 lbs of the total 206.31 lbs are authorized under Permit #3452/PSD-TX-302M2.
Nitrogen Oxides (NOx)	603.93	POUNDS	1630.75	LBS/HR	596.41 lbs of the total 603.93 lbs are authorized under Permit #3452/PSD-TX-302M2.
Propane	182.4	POUNDS	709.48	LBS/HR	94.36 lbs of the total 182.40 lbs are authorized under Permit #3452/PSD-TX-302M2.
Propylene (Propene)	984.59	POUNDS	709.48	LBS/HR	505.07 lbs of the total 984.59 lbs are authorized under Permit #3452/PSD-TX-302M2.
Trans-2-butene	165.42	POUNDS	709.48	LBS/HR	85.08 lbs of the total 165.42 lbs are authorized under Permit #3452/PSD-TX-

302M2.

3 - Emission Point Common Name:			Emission Point Number:		
Primary Flare			FLARE1		
List of Air Contaminant Compounds - 14 total					
Description	Est. Quantity/ Opacity	Units	Emission Limit	Units	Authorization
Acetylene	7.51	POUNDS	709.48	LBS/HR	4.09 lbs of the total 7.51 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Benzene	1046.11	POUNDS	709.48	LBS/HR	702.10 lbs of the total 1046.11 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Butadiene, 1-3	265.83	POUNDS	709.48	LBS/HR	162.98 lbs of the total 265.83 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Butane, N-	160.45	POUNDS	709.48	LBS/HR	101.94 lbs of the total 160.45 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
C5+ (not including benzene)	855.91	POUNDS	709.48	LBS/HR	574.45 lbs of the total 855.91 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Carbon Monoxide	6655.89	POUNDS	6627.58	LBS/HR	2579.67 lbs of the total 6655.89 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Cis-2-butene	16.66	POUNDS	709.48	LBS/HR	9.17 lbs of the total 16.66 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Ethylene	2834.94	POUNDS	709.48	LBS/HR	1836.33 lbs of the total 2834.94 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Isobutane	28.3	POUNDS	709.48	LBS/HR	20.45 lbs of the total 28.30 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Isobutene	124.67	POUNDS	709.48	LBS/HR	71.16 lbs of the total 124.67 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Nitrogen Oxides (NOx)	927.27	POUNDS	1630.75	LBS/HR	704.47 lbs of the total 927.27 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.

Propane	285.29	POUNDS	709.48	LBS/HR	183.56 lbs of the total 285.29 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Propylene (Propene)	768.4	POUNDS	709.48	LBS/HR	483.73 lbs of the total 768.40 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Trans-2-butene	32.93	POUNDS	709.48	LBS/HR	16.84 lbs of the total 32.93 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.

4 - Emission Point Common Name:	Emission Point Number:
PRU Depropanizer Tower (NT-01)	N/A

List of Air Contaminant Compounds - 27 total					
Description	Est. Quantity/ Opacity	Units	Emission Limit	Units	Authorization
1-Butene	2880.55	POUNDS	0.0		Not specifically authorized.
Amylenes	1578.98	POUNDS	0.0		Not specifically authorized.
Benzene	3289.72	POUNDS	0.0		Not specifically authorized.
Butadiene, 1-3	7983.37	POUNDS	0.0		Not specifically authorized.
Butane, N-	778.33	POUNDS	0.0		Not specifically authorized.
C5s	1138.54	POUNDS	0.0		Not specifically authorized.
C6s	612.96	POUNDS	0.0		Not specifically authorized.
C7/C8 hydrocarbons	116.61	POUNDS	0.0		Not specifically authorized.
C8s	0.05	POUNDS	0.0		Not specifically authorized.
Carbon Monoxide	861.0	POUNDS	0.0		Not specifically authorized.
Cis-2-butene	1597.57	POUNDS	0.0		Not specifically authorized.
Cyclopentadiene	1703.92	POUNDS	0.0		Not specifically authorized.
Isobutane	189.68	POUNDS	0.0		Not specifically authorized.
Isobutene	3124.2	POUNDS	0.0		Not specifically authorized.
Isoprene	1343.88	POUNDS	0.0		Not specifically authorized.
Methylacetylene Propadiene	734.16	POUNDS	0.0		Not specifically authorized.
Methylcyclopentadiene	848.08	POUNDS	0.0		Not specifically authorized.
Nitrogen Oxides (NOx)	4132.81	POUNDS	0.0		Not specifically authorized.

Opacity	100.0	% OPACITY	0.0		Not specifically authorized.
Piperylene	737.64	POUNDS	0.0		Not specifically authorized.
PM (unspeciated)	344.4	POUNDS	0.0		Not specifically authorized.
Propane	5877.77	POUNDS	0.0		Not specifically authorized.
Propylene	34015.82	POUNDS	0.0		Not specifically authorized.
Styrene	0.05	POUNDS	0.0		Not specifically authorized.
Toluene	18.81	POUNDS	0.0		Not specifically authorized.
Vinyl acetate	155.26	POUNDS	0.0		Not specifically authorized.
VOC(unspeciated)	43.39	POUNDS	0.0		Not specifically authorized.

5 - Emission Point Common Name:			Emission Point Number:		
Secondary Flare			FLARE2		
List of Air Contaminant Compounds - 14 total					
Description	Est. Quantity/ Opacity	Units	Emission Limit	Units	Authorization
Acetylene	10.09	POUNDS	709.48	LBS/HR	4.07 lbs of the total 10.09 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Benzene	1376.22	POUNDS	709.48	LBS/HR	828.71 lbs of the total 1376.22 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Butadiene, 1-3	170.27	POUNDS	709.48	LBS/HR	75.34 lbs of the total 170.27 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Butane, N-	107.93	POUNDS	709.48	LBS/HR	53.83 lbs of the total 107.93 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
C5+ (not including benzene)	1126.0	POUNDS	709.48	LBS/HR	678.04 lbs of the total 1126.00 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Carbon Monoxide	5885.34	POUNDS	6627.58	LBS/HR	1831.16 lbs of the total 5885.34 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Cis-2-butene	10.92	POUNDS	709.48	LBS/HR	3.45 lbs of the total 10.92 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Ethylene	3252.79	POUNDS	709.48	LBS/HR	1826.86 lbs of the total 3252.79 lbs are

					authorized under Permit #3452/PSD-TX-302M2/PAL6.
Isobutane	17.2	POUNDS	709.48	LBS/HR	10.64 lbs of the total 17.20 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Isobutene	88.38	POUNDS	709.48	LBS/HR	36.48 lbs of the total 88.38 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Nitrogen Oxides (NOx)	820.46	POUNDS	1630.75	LBS/HR	536.63 lbs of the total 820.46 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Propane	194.14	POUNDS	709.48	LBS/HR	107.06 lbs of the total 194.14 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Propylene (Propene)	650.62	POUNDS	709.48	LBS/HR	387.29 lbs of the total 650.62 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.
Trans-2-butene	15.24	POUNDS	709.48	LBS/HR	4.43 lbs of the total 15.24 lbs are authorized under Permit #3452/PSD-TX-302M2/PAL6.

Cause of Emission Event or Excess Opacity Event, or Reason for Scheduled Activity:

The Baytown Olefins Plant Propylene Recovery Unit Depropanizer Tower (NT-01) experienced a fire which resulted in emissions to atmosphere and safe utilization of the flare system.

Actions Taken, or Being Taken, to Minimize Emissions And/or Correct the Situation:

The tower was isolated and fire extinguished. Operational adjustments are being made to minimize emissions. Available information indicates no adverse impact to the site and the surrounding community.

Basis Used to Determine Quantities and Any Additional Information Necessary to Evaluate the Event:

Portions of the unit emissions are authorized by Permit #3452/PSD-TX-302M2/PAL6 and Permit#102982/PAL6. Emissions estimates include process and engineering knowledge, analyzer data, sample data, flow meters, historical data, and/or AP-42 emission factors. VOCs represent a mixture of C5+. Total emissions in the "Est. Quantity" column is the sum of authorized and unauthorized emissions. The event is ongoing.

Initial Notification Date/Time:	08/01/2019 10:37 AM	Method:	STEERS
Notification Jurisdictions:	REGION 12 - HOUSTON		
Publication Status:	VERIFIED BY A CUSTOMER		